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► Education

■ Reshetnev Siberian State University of Science and Technology

August 2021 – July 2025
Russia, Krasnoyarsk

09.03.04 Software engineering

Software and information systems development

- Thesis theme: **PostgreSQL extension development for storing CATIA V5 vector graphics objects**
- Thesis supervisor: **Assoc. Prof., Cand. Sci. (Tech.), Morgunov E.P.**

■ PostgresPro DBA1

February – June 2023
Russia, Krasnoyarsk

- Institution: Reshetnev Siberian State University of Science and Technology
- Lecturer: Assoc. Prof., Cand. Sci. (Tech.), Morgunova O.N.

■ Telecommunication technologies and protocols

February – June 2023
Russia, Krasnoyarsk

- Institution: Reshetnev Siberian State University of Science and Technology
- Lecturer: Assoc. Prof., Cand. Sci. (Tech.), Demichev M.S.

■ Astronomy club

September 2012 – July 2021
Russia, Krasnoyarsk

- Institution: Krasnoyarsk Krai Palace of Pioneers
- Lecturer: Prof., Dr. Sc. (Phys.-Math.), Karpov S.V.

► Bachelor thesis

■ **Theme:** PostgreSQL extension development for storing CATIA V5 vector graphics objects.

■ **Aim:** Organize data storage and exchange between **CATIA V5** and **PostgreSQL**.

■ **Solution:**

- **PostgreSQL C** extension: UDT, I/O functions, regex according to GOST 2.201–80.
- **PDM middleware** using **C# COM interop** to interact with **CATIA V5**.
- **GUI** for the engineer–constructor.

■ **Result:** **PDM system** prototype.

■ **Supervisor:** Assoc. Prof., Cand. Sci. (Eng.), Morgunov E.P.

► Professional experience

■ Polyus MFC LLC (PJSC Polyus)

June – November 2022
Russia, Krasnoyarsk

Backend Developer and Technical Support Engineer

- Started as a technical support team member, then switched to development.
 - Developed an integration prototype between **Naumen Service Desk** and **Global Hotspot**.
 - Implemented data synchronization between the service desk and public Wi-Fi AP user tracking system according to **No. 97–FZ (GDPR-like)**.
 - Quickly learned a new language: **PowerShell**.
 - In the absence of documentation and technical support, **reverse engineered APIs** of both systems.
 - Rewrote an unmaintainable **legacy monolith into modular architecture**.
 - The prototype successfully passed module **tests**, revealing architectural flaws.
- The results, along with product documentation, were delivered to the customer.

■ Polyus MFC LLC (PJSC Polyus)

August – August 2024
Russia, Krasnoyarsk

Trainee

- Developed a prototype of **Naumen Service Desk** and **Microsoft SharePoint** integration.

► Publications

■ Planetary system simulator

Reshetnev Readings

EDN:CTZGBA →

Russia, Krasnoyarsk

November 2021

► Selected research and commercial projects

■ pss

2021

- **Task** – Planetary system simulator with variable characteristics and controlled dynamics.
- **Action** – Studied the theoretical foundations of celestial mechanics. Implemented a model of the motion of celestial bodies in C++.
- **Result** – Gained experience in mathematical modeling. Published in the conference proceedings (EDN:CTZGBA).

Languages and technologies: **C++**.

■ nsd2ghs

2022

- **Task** – Integration of a service desk and a user tracking system for public Wi-Fi AP.
- **Action** – Implemented data synchronization between the black boxes of **Naumen Service Desk** and **Global Hotspot**, by performing **API reverse engineering** of both systems due to lack of support.
- **Result** – The prototype successfully passed the modular **testing** which revealed the architectural limitations of the systems, the results of the analysis were passed to the customer with documentation.

Languages and technologies: **PowerShell, REST API**.

■ nsd2sp

2024

- **Task** – Accounting of the Service Desk requests for the Information Security group for checking software for undocumented features.
- **Action** – Integrated Naumen Service Desk and Microsoft Excel Online (SharePoint) through their **REST API**.
- **Result** – The university internship report has been successfully defended and submitted.

Languages and technologies: **Erlang, REST API**.

■ krtz_survey_2025

2025

- **Task** – Processing the results of the survey of employees of JSC NPP Radiosviaz.
- **Action** – Performed statistical processing (\bar{x} , M , σ , σ^2 , $r_{pearson}$) of weakly structured survey data and plotted graphs.
- **Result** – The report was submitted on time and accepted.

Languages and technologies: **Python, pandas, numpy, scipy, matplotlib**.

► Selected personal projects

■ STO-SibSAU

2022–2027

- **Task** – Automate and simplify writing according to SibSU standards.
- **Action** – Studied the standard – CTO 7.5.04–2019.
- **Result** – Developed a \LaTeX -template compliant with university requirements.

Languages and technologies: **\LaTeX** .

■ VKRgrabber

2025

- **Task** – Download and aggregate theses from SibSU e-library system.
- **Action** – Studied the internals of university's e-library system and wrote its parser.
- **Result** – Theses were obtained.

Languages and technologies: **Python**.

■ vernam

2025

- **Task** – Implement cipher and proto-PKI.
- **Action** – Studied the principles of Vernam cipher and PKI.
- **Result** – Implemented cipher and proto-PKI.

Languages and technologies: **Python**.

- **gns3-net** → 2023
 - **Task** – Design and deploy a virtual computer network.
 - **Action** – Designed the network according to the requirements. Modeled and deployed it in a virtual environment.
 - **Result** – Network works according to the requirements.

Languages and technologies: **GNS3, MikroTik CHR.**

- **homelab** → 2022–
 - **Task** – Provide reliable data storage and access to services.
 - **Action** – Built a FreeBSD server and deployed ZFS setup on it. Configured the necessary services.
 - **Result** – Homelab deployed, configured and up and running.

Languages and technologies: **FreeBSD, ZFS, other software.**

► Selected academic projects

- **benchmark** → 2021–2022

Algorithm benchmarking tool.
Languages and technologies: **C++, Google Test, Google Benchmark.**

- **ECG** → 2021

Parts designed as part of an Engineering and Computer Graphics course.
Languages and technologies: **CATIA V5.**

- **comp-calculus** → 2022

Symbolic solving of definite integrals.
Languages and technologies: **Haskell, Python, Common Lisp.**

- **wifi-user-tracker** → 2023

User tracking system for public Wi-Fi access points.
Languages and technologies: **PostgreSQL, SQL, PL/pgSQL, Java.**

- **par-comp** → 2023

Parallelized Strassen algorithm and calculation of π .
Languages and technologies: **Fortran 90, OpenMP.**

- **steam-stats** → 2024

Parallelized Steam account statistics collection.
Languages and technologies: **Erlang.**

- **mobile-dev** → 2025

Android apps development course.
Languages and technologies: **Java, Android.**

- **AIMF** → 2025

Decision support systems, fuzzy logic and ANN.
Languages and technologies: **Prolog, Python, Keras, PyTorch, skfuzzy.**

- **PFSP** → 2025

APS-system that implements Johnson and Nawaz–Enscore–Ham methods.
Languages and technologies: **Fortran 90, C#, WinForms.**

► Skills

- **Foreign languages:** English (working proficiency).
- **Programming languages (active):** C, C#, Java, SQL, PL/pgSQL, PowerShell, \LaTeX .
- **Programming languages (legacy):** VBA, Fortran 90.
- **Technologies (active):** PostgreSQL, GraphQL, REST.
- **Technologies (legacy):** CATIA V5 CAA, OpenMP, Android, WinForms.
- **Applied software (development):** git, psql, JetBrains.
- **Applied software (PM):** ARIS Express, Software Ideas Modeller.
- **Applied software (other):** Microsoft Office, CATIA V5.
- **Infrastructure:** *nix, FreeBSD, Linux, MikroTik RouterOS, PostgreSQL DBA.
- **Homelab:** ZFS, Samba, Caddy, Authelia, PostgreSQL, Forgejo, Transmission, Jellyfin.
- **Project management:** UML, BPMN, Kanban, GOST 19, legacy support, software lifecycle.

► Hobby

- **Astronomy:** Built a refractor, took part in a series of summer expeditions, published an article in the RSCI-indexed conference proceedings.
- **Alpine skiing:** Semi-professional alpine skiing, now recreational.
- **Pet projects development:** Developing software for personal and family needs.